

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



10/530074



(43) International Publication Date
15 April 2004 (15.04.2004)

PCT

(10) International Publication Number
WO 2004/032445 A3

(51) International Patent Classification⁷: H04L 29/06, G06N 5/02

(21) International Application Number:
PCT/CA2003/001507

(22) International Filing Date: 1 October 2003 (01.10.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/415,202 2 October 2002 (02.10.2002) US

(71) Applicant and

(72) Inventor: REINER, Richard [CA/CA]; c/o FSC Internet Corp., 229 Yonge Street, Toronto, Ontario M5B 1N9 (CA).

(74) Agent: FAGGETTER, Ronald, D.; SMART & BIGGAR, 438 University Avenue, Suite 1500, Box 111, Toronto, Ontario M5G 2K8 (CA).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

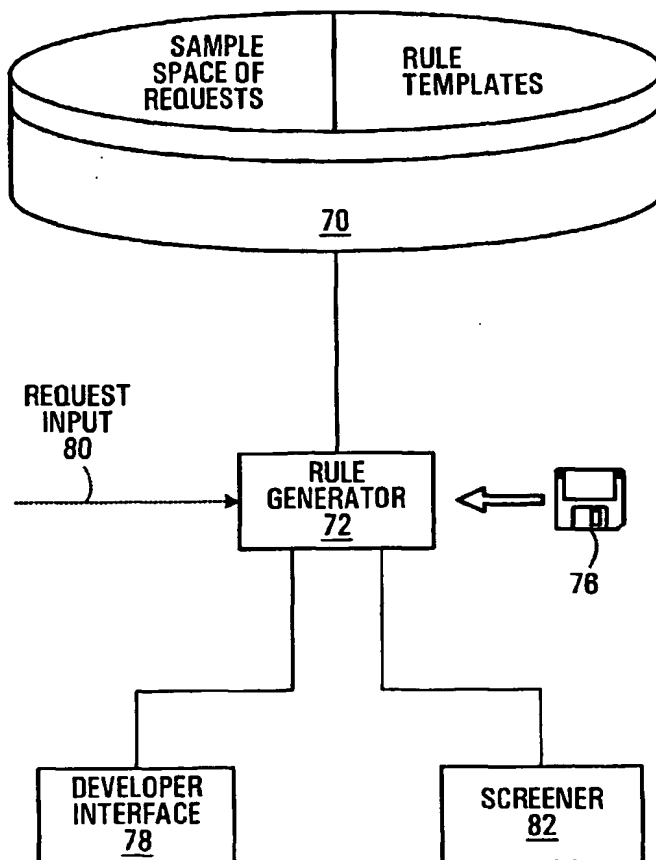
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: RULE CREATION FOR COMPUTER APPLICATION SCREENING;



(57) Abstract: To facilitate the creation of rules for screening application layer requests to a computer application, a sample space of application layer requests is grouped according to one or more grouping criteria. Each grouping criterion may be a feature of application layer requests such that each grouping contains application layer requests with a common feature. For example, where the application layer requests follow the hyper-text transport protocol (HTTP), a common feature for some groupings could be a common URI pathname extension. A rule set for an application may be used to expose errors in the application. Test requests are constructed each of which violates at least one of the rules. The test requests are passed to the application to see whether the application throws the expected exceptions.

WO 2004/032445 A3



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:
24 June 2004

INTERNATIONAL SEARCH REPORT

International Application No
PCT/03/01507

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L29/06 G06N5/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04L G06N G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, INSPEC, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 6 311 278 B1 (MORAN TAL ET AL) 30 October 2001 (2001-10-30) abstract column 1, line 65 -column 3, line 23 column 3, line 65 -column 4, line 5 column 4, line 46 -column 5, line 9 column 5, line 40 -column 6, line 27 claims 1,9 --- -/-	1-5, 22-24 6-21, 25, 26

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the International search

1 April 2004

Date of mailing of the International search report

20.04.2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Hes, R

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA 03/01507

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-26

Method, system and computer readable medium for grouping protocol requests based on features that have not been predetermined.

2. Claims: 27-31

Method, computer readable medium and application tester for testing errors in a computer application.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 03/01507

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	GB 2 365 668 A (IBM) 20 February 2002 (2002-02-20) page 1, line 40 -page 2, line 40 page 6, line 11-25 page 7, line 32 -page 8, line 2 page 11, line 4-16 page 12, line 1-20 ----	1-5, 22-24 6-21, 25, 26
P, X	WO 03 058450 A (SANCTUM INC) 17 July 2003 (2003-07-17) page 4, line 9 -page 5, line 13 page 6, line 15 -page 7, line 20 page 10, line 21 -page 11, line 11 page 12, line 5 -page 13, line 4 ----	1-26
A	US 2002/093527 A1 (SHERLOCK KIERAN G ET AL) 18 July 2002 (2002-07-18) paragraphs '0043!-'0045! paragraphs '0097!-'0105! paragraphs '0125!-'0133! paragraphs '0186!-'0191! paragraph '0216! ----	1-26
X	KROPP N P ET AL: "Automated robustness testing of off-the-shelf software components" FAULT-TOLERANT COMPUTING, 1998. DIGEST OF PAPERS. TWENTY-EIGHTH ANNUAL INTERNATIONAL SYMPOSIUM ON MUNICH, GERMANY 23-25 JUNE 1998, LOS ALAMITOS, CA, USA, IEEE COMPUT. SOC, US, 23 June 1998 (1998-06-23), pages 230-239, XP010291290 ISBN: 0-8186-8470-4 paragraphs '02.1!-'02.2! ----	27-31
A	US 6 009 475 A (SHRADER THEODORE JACK LONDON) 28 December 1999 (1999-12-28) abstract column 1, line 36-55 column 4, line 24-40 column 7, line 1-33 column 9, line 24-30 ----	27-31
A	US 6 173 440 B1 (DARTY MARK A) 9 January 2001 (2001-01-09) abstract column 2 -column 4 -----	27-31

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 03/01507

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6311278	B1	30-10-2001	US 6321337 B1 AU 5561200 A EP 1203297 A1 WO 0102963 A1 JP 2003504723 T US 2002116643 A1	20-11-2001 22-01-2001 08-05-2002 11-01-2001 04-02-2003 22-08-2002
GB 2365668	A	20-02-2002	JP 2002271396 A	20-09-2002
WO 03058450	A	17-07-2003	WO 03058450 A1 US 2003226038 A1	17-07-2003 04-12-2003
US 2002093527	A1	18-07-2002	AU 6676401 A AU 6695501 A AU 6840801 A AU 6849101 A AU 6849201 A AU 6987001 A AU 7131501 A AU 7542701 A WO 0199031 A2 WO 0199349 A2 WO 0199343 A2 WO 0198932 A2 WO 0199002 A2 WO 0199371 A2 WO 0199372 A2 WO 0199373 A2 US 2004030796 A1 US 2004039942 A1 US 2003061506 A1 US 2003208689 A1 US 2002069200 A1 US 2002053033 A1	02-01-2002 02-01-2002 02-01-2002 02-01-2002 02-01-2002 02-01-2002 02-01-2002 02-01-2002 27-12-2001 27-12-2001 27-12-2001 27-12-2001 27-12-2001 27-12-2001 27-12-2001 27-12-2001 12-02-2004 26-02-2004 27-03-2003 06-11-2003 06-06-2002 02-05-2002
US 6009475	A	28-12-1999	KR 268198 B1	01-11-2000
US 6173440	B1	09-01-2001	NONE	